

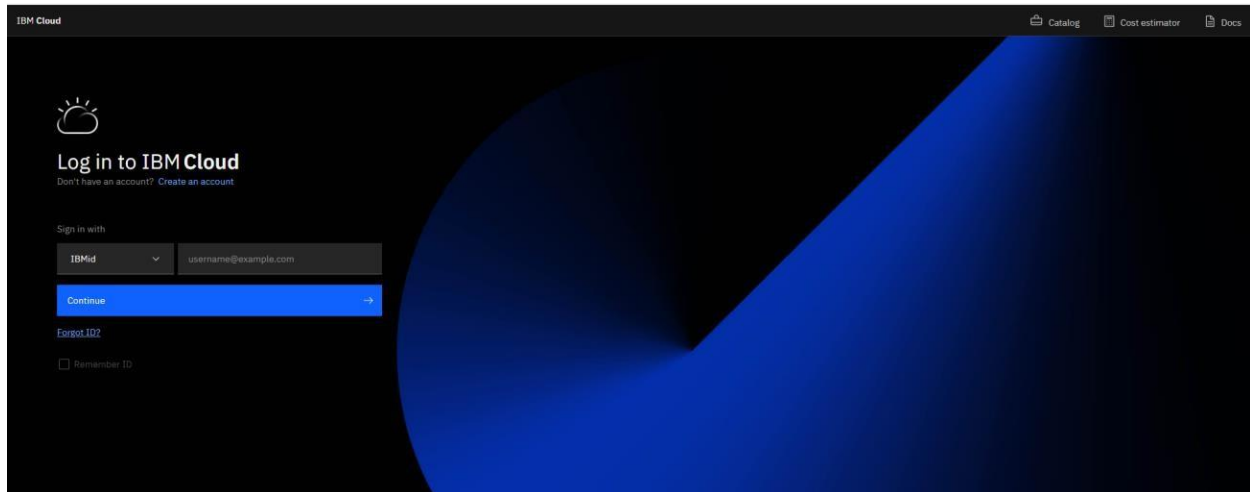
## CREATE IBM WATSON IOT PLATFORM AND DEVICE

### AIM:

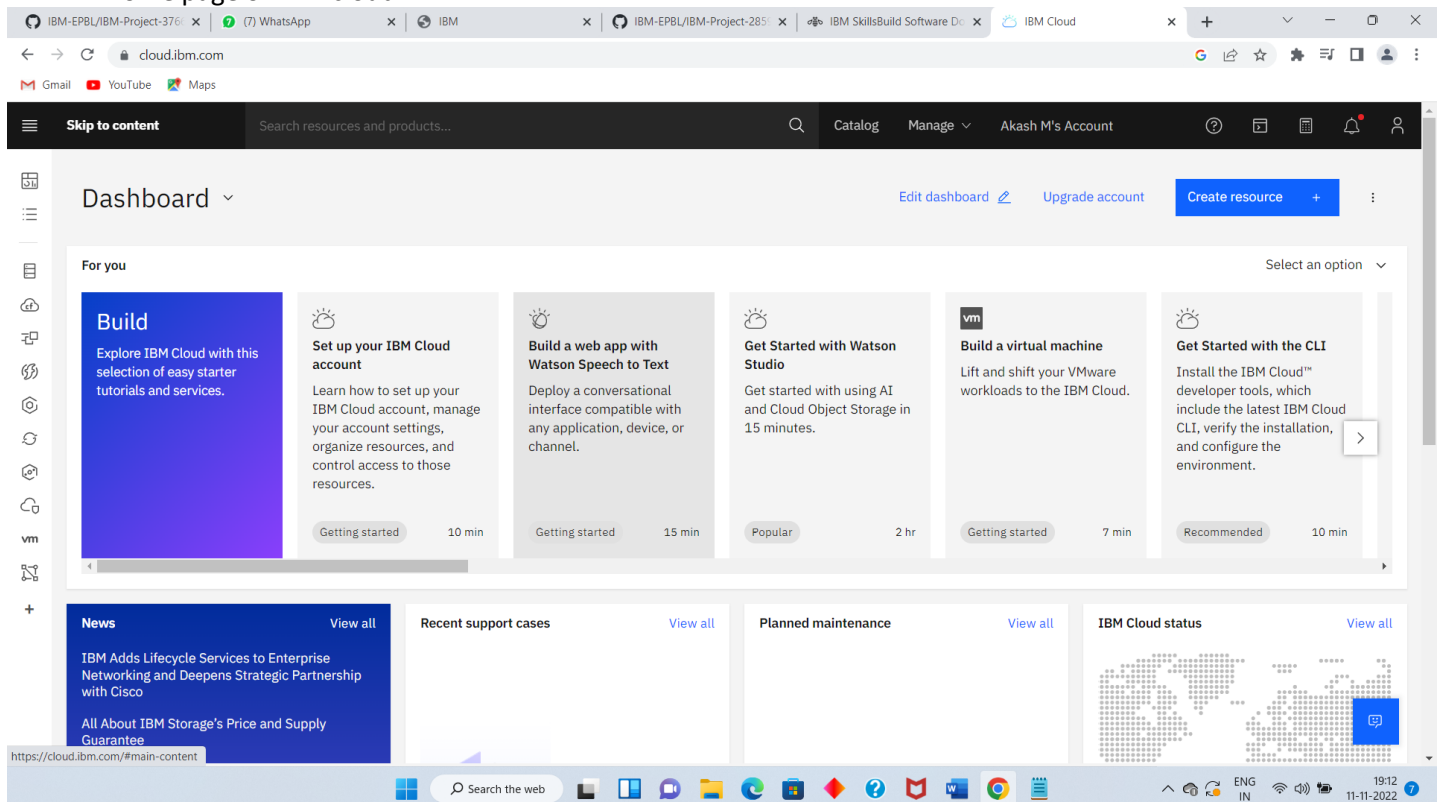
To create the IBM Watson IoT platform and device

### STEPS:

1. Firstly create an IBM cloud account with IBMid and password.



2. Home page of IBM cloud.



### 3. Click on the catalog on the top.

IBM-EPBL/IBM-Project-37667-16 x Catalog - IBM Cloud x IBM-Project-8063-1658908425/C x +

cloud.ibm.com/catalog

Gmail YouTube Maps

IBM Cloud Search resources and products...

Catalog Manage Akash M's Account

Sell on IBM Cloud Catalog settings

## Catalog

Search the catalog...

Category ^ Viewing 206 products

Alphabetically

- Recommended products (6)
- Compute (30)
- Containers (9)
- Networking (30)
- Storage (20)
- AI / Machine Learning (17)
- Analytics (10)
- Blockchain (1)
- Databases (28)
- Developer tools (25)
- Logging and monitoring (3)
- Migration (8)

https://cloud.ibm.com/catalog/services/api-connect

Analytics Engine By IBM

Submit your Apache Spark applications as needed and customize the Spark runtimes to satisfy the requirements of your application.

Lite • Free • HIPAA Enabled • IAM-enabled • Service Endpoint Supported • IBM supported

AnonTech ViziVault Platform By Anon Technology, Inc.

Manage personal information as-a-service safely, securely, and in compliance with data privacy regulations using ViziVault

Lite • Free • HIPAA Enabled • IAM-enabled • Third party supported

API Connect By IBM

An enterprise-grade platform for creating, securing, managing, sharing, monetizing, and analyzing custom APIs located on-premises and on the cloud.

Lite • Free • EU Supported • IAM-enabled • IBM supported

App Configuration By IBM

App Connect By IBM

App ID By IBM

Search the web

ENG IN 20:45 11-11-2022

### 4. Click on IoT in the category mentioned.

IBM-EPBL/IBM-Projec x Download file | iLove! x (9) WhatsApp x IBM x IBM-EPBL/IBM-Projec x Download file | iLove! x Catalog - IBM Cloud x +

cloud.ibm.com/catalog?category=iot

Gmail YouTube Maps

IBM Cloud Search resources and products...

Catalog Manage Akash M's Account

Sell on IBM Cloud Catalog settings

Search the catalog...

Type ^

- All
- Services
- Software
- Professional services

Provider ^

- IBM (1)

Pricing plan ^

- Lite
- Free

Compliance ^

- IAM-enabled

Viewing 1 product

Filters: Internet of Things x Clear all

Internet of Things Platform By IBM

This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data.

Lite • Free • IAM-enabled • IBM supported

Create

Learn more

Create Node-RED....pdf Create Node-RE....docx Create IBM Wats....docx Create IBM Wats....docx Create Node-RED....pdf CREATING IBM CL....pdf Show all

Search the web

ENG IN 22:39 11-11-2022

5. If already a lite is present delete it else u can't create another.

IBM Cloud

Search resources and products...

Catalog Manage Akash M's Account

Internet of Things Platform

This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data.

Create About

Type Service

Provider IBM

Last updated 08/15/2022

Category Internet of Things

Compliance IAM-enabled

Location Frankfurt London Dallas Washington DC

Related links Docs

Select a location

Frankfurt (eu-de)

Select a pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or location: [United States](#)

| Plan | Features  | Pricing |
|------|---|---------|
| Lite | Includes up to 500 registered devices, and a maximum of 200 MB of each data metric<br>Maximum of 500 registered devices<br>Maximum of 500 application bindings<br>Maximum of 200 MB of each of data exchanged, data analyzed and edge data analyzed | Free    |

Summary

Internet of Things Platform Free

Location: Frankfurt

Plan: Lite

Service name: Internet of Things Platform-tu

Resource group: Default

Existing Lite plan instance

You can have only 1 Lite plan instance of this service per resource group. [Delete](#) your current Lite plan instance in Default resource group to create a new one, or [view the existing instance](#).

☐ I have read and agree to the following license agreements: [Terms](#)

Create

Add to estimate

6. Enter the location and in the configure your resource type the service name and choose the plan, tick the agree with agreements and then click on create.

IBM Cloud

Search resources and products...

Catalog Manage Akash M's Account

Resource list /

Internet of Things Platform-4b Active Add tags

Details Actions...

Manage

Plan

Connections

Let's get started with IBM Watson IoT Platform

Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.

Launch Docs

Ready for the next level?

IBM Watson IoT Platform Journey

Lite

The Lite service plan provides a lightweight development environment to get you started with the connectivity capabilities of Watson IoT Platform.

Non-Production

The Non-Production service plan is a full-featured, fully-integrated offering that enables you to explore Watson IoT Platform to see how the service can fit into your IoT environment.

Production

The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.

7. Internet of Things Platform Child\_safety will be created, where there are different options like manage, plan, and connection ( manage is for launch, Plan gives us the idea about the payment package and its upgrades, and lastly the connection is for to connect IoT with other services)

Resource list / Internet of Things Platform-4b Active Add tags Details Actions...

**Manage**

- Plan
- Connections

**Let's get started with IBM Watson IoT Platform**

Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.

[Launch](#) [Docs](#)

Ready for the next level?

**IBM Watson IoT Platform Journey**

- Lite**  
The Lite service plan provides a lightweight development environment to get you started with the connectivity capabilities of Watson IoT Platform.
- Non-Production**  
The Non-Production service plan is a full-featured, fully-integrated offering that enables you to explore Watson IoT Platform to see how the service can fit into your IoT environment.
- Production**  
The Production service is a fully managed SaaS offering that enables you to manage and analyze enterprise IoT data.

8. Clicking on the launch button in the manage tab, it will open to this.

IBM Watson IoT Platform Sign in

Collect data from **Cars** and make value from it

[Learn More](#)

Cookie Preferences

## 9. Enter the details to sign in to the Watson Cloud to create a device.

IBM-EPBL/IBM-Project-37667-16 x Service Details - IBM Cloud x IBM Mid - Sign in or create an IBM x IBM-Project-8063-1658908425/ x +

login.ibm.com/authsvc/mtfm/sps/authsvc?PolicyId=urn:ibm:security:authentication:casf:basicdapuser&Target=https%3A%2F%2Flogin.ibm.com%2Foidc%2Fendpoint%2Fdefault%2Fauthorize... ☆ ⚙️ 🗖️ 👤

Gmail YouTube Maps

**IBM**

### Log in to IBM

IBMId [Forgot IBMId?](#)

☐ Remember me ⓘ

[Continue](#) →

Don't have an account? [Create an IBMId](#)

Need help? [Contact the IBMId help desk](#)

Contact Privacy Terms of use Accessibility Cookie preferences

Powered by IBM Security Verify

Search the web

ENG IN 20:50 11-11-2022

## 10. Once logged in the name will be displayed and it goes back to the first page.

IBM-EPBL/IBM-Project-37667-16 x Service Details - IBM Cloud x IBM Watson IoT Platform x IBM-Project-8063-1658908425/ x +

internetofthings.ibmcloud.com ☆ ⚙️ 👤

Gmail YouTube Maps

**IBM Watson IoT Platform** 19ec005@kpriet.ac.in ID: (select org)

Collect data from

**Cars**

and make value from it

[Learn More](#)

Cookie Preferences

Search the web

ENG IN 20:51 11-11-2022

11. And again clicking on the launch button will open this tab, the device will help in the creation of the devices, the addition of devices, and the display of details of the devices and Click on the device tab and click on the add device button, then give the device type and device id and click next.

IBM Watson IoT Platform

Browse Action Device Types Interfaces

## Browse Devices

All Devices Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device Simulator

| Device ID | Status | Device Type | Class ID | Date Added | Descriptive Location |
|-----------|--------|-------------|----------|------------|----------------------|
|-----------|--------|-------------|----------|------------|----------------------|

You don't have any devices.

Create a device.

IBM Watson IoT Platform

Browse Action Device Types Interfaces

## Add Device

Identity Device Information Security Summary

Select a device type for the device that you are adding and give the device a unique ID.

Device Type: TestDeviceType

Device ID: 12345

Cancel Next

## Browse Devices

All Devices Diagnose

12. This page to enter extra details and of the hardware.

The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform. The user is at the 'Device Information' step, which is the second of four steps: Identity, Device Information, Security, and Summary. The page contains several input fields for device details:

- Serial Number: Enter Serial Number
- Model: Enter Model
- Description: Enter Description
- Hardware Version: Enter Hardware Version
- Manufacturer: Enter Manufacturer
- Device Class: Enter Device Class
- Firmware Version: Enter Firmware Version
- Descriptive Location: Enter Descriptive Location

There is an 'Add Metadata' button with a plus icon. At the bottom right, there are 'Back' and 'Next' buttons. The top navigation bar shows the user is logged in as '19ec005@kpriet.ac.in' with ID 'jagr9v'.

13. Clicking next it goes to the security where we do authentication token id.

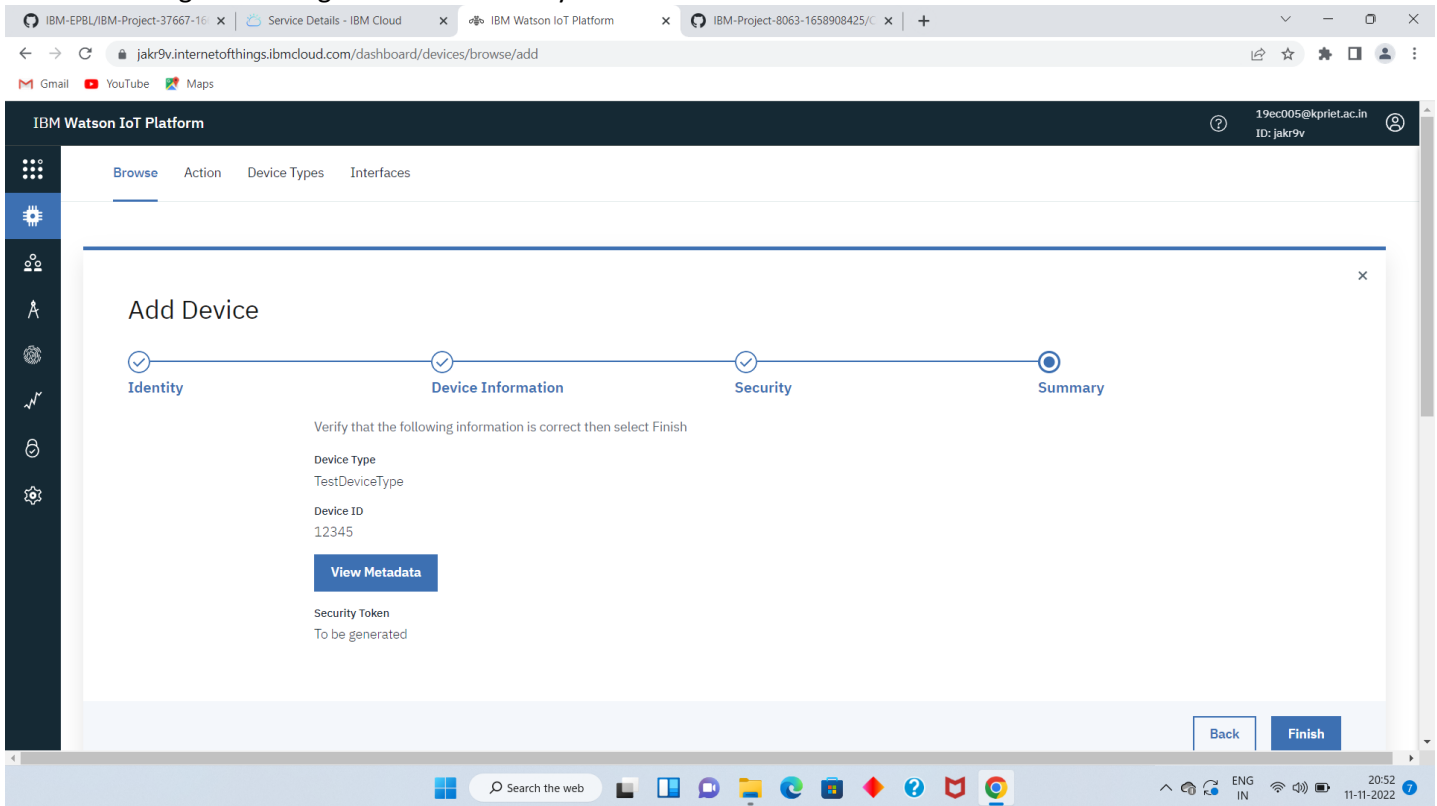
The screenshot shows the 'Add Device' wizard in the IBM Watson IoT Platform, now at the 'Security' step. The 'Identity' and 'Device Information' steps are completed. The page presents two options for selecting a device authentication token:

- Auto-generated authentication token (default)**: Allow the service to generate an authentication token for you. Tokens are 18 characters and contain a mix of alphanumeric characters and symbols. The token is returned to you at the end of the device registration process.
- Self-provided authentication token**: Provide your own authentication token for this device. The token must be between 8 and 36 characters and contain a mix of lowercase and uppercase letters, numbers, and symbols, which can include hyphens, underscores, and periods. Do not use repeated characters, dictionary words, user names, or other predefined sequences.

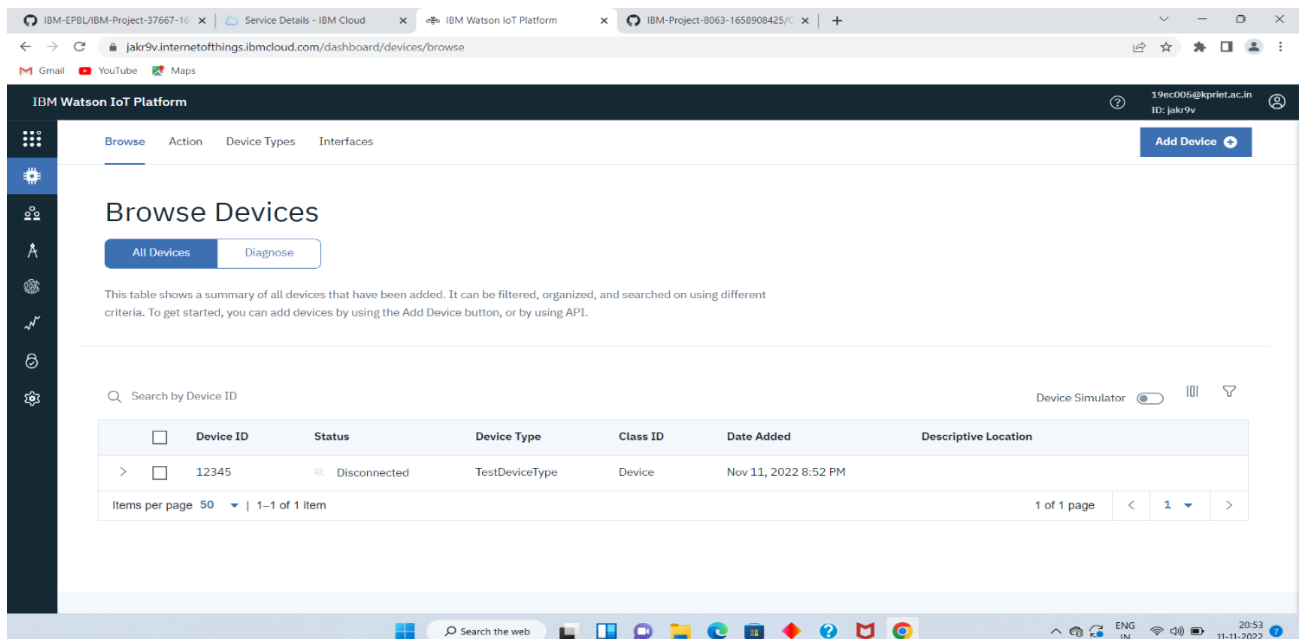
Below these options is an input field labeled 'Authentication Token' with the placeholder text 'Enter an optional token'. A note below the field states: 'Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored. Authentication token are encrypted before we store them.'

At the bottom right, there are 'Back' and 'Next' buttons. The top navigation bar shows the user is logged in as '19ec005@kpriet.ac.in' with ID 'jagr9v'.

14. Clicking on next it goes to the summary of the device then click finish.



15. Clicking on the device tab we can now see the added device. Clicking on it will display the other details. It has different tabs like Identity, Device Information, State and login





In a similar way, we can create n number of devices with a 50 per page limit as per the requirement of our project.

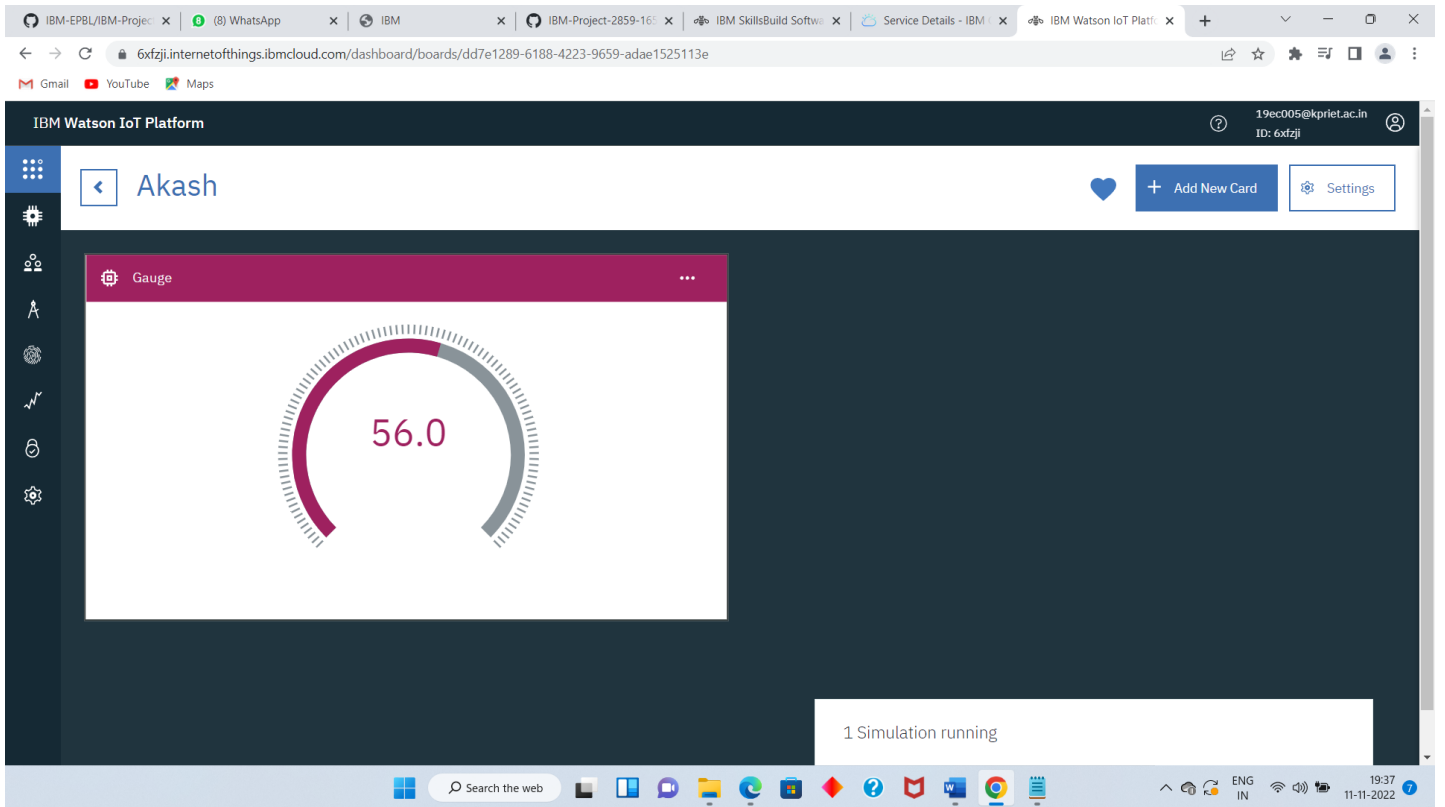
The screenshot shows the IBM Watson IoT Platform 'General Settings' page. The left sidebar contains navigation links for PLATFORM (About, Identity, Experimental Features, Last Event Cache, Client Connection, State API), DATA AND DEVICES (Custom Device, Management Packages, Device Simulator), and SECURITY. The main content area has sections for Device Simulator (with an 'Activate Device Simulator' toggle), Connection Security (with an 'Open Connection Security Policy' button), and CA Certificates. A modal window is open over the 'Device Simulator' section, titled 'Device Type: TestDeviceType'. It shows 'Events' with a 'New event type' button. The 'Event type name' is 'event\_1'. The 'Schedule' is set to '20' 'Every Minute'. The 'Payload' is a JSON object: 

```
{ 0: { 1: { "randomNumber": random(0, 100) 2: } 3: }
```

. There is an 'Upload a CSV file' button and a 'What functions can I apply?' link. The modal has 'Cancel' and 'Save' buttons at the bottom.

16. The Boards will display card for the project.

The screenshot shows the IBM Watson IoT Platform 'Boards' page. The top navigation bar includes 'Your boards' and 'Public boards'. A 'Create New Board' button is in the top right. The main content area is titled 'Your boards' and shows two cards: 'USAGE OVERVIEW' with '3 Cards' and 'Owned by you', and 'RISK AND SECURITY OVERVIEW' with '4 Cards' and 'Owned by you'. A large dashed box with a plus sign is also visible. Below these cards is a section titled 'Boards shared with you'. At the bottom right, a status bar indicates '1 Simulation running'. The page has a dark theme and a sidebar with navigation icons.



## RESULT:

An IBM Watson cloud for IoT and a device is create